

REMARKS

Applicants respectfully request reconsideration of the present application in view of this Amendment. Claims 1 and 4 have been amended and claims 7-20 have been added by way of this response. Claims 1-20 are currently pending and claims 1, 4 and 16 are independent claims.

PRIORITY DOCUMENTS

Applicants acknowledge and thank the Examiner for the acknowledgement of priority under 35 U.S.C. § 119, and further thank the Examiner for the acknowledgement of the receipt of all the necessary priority documents in this National Stage application from the International Bureau, as shown in the Office Action Summary dated June 17, 2004.

DRAWINGS

The Examiner has objected to the drawings under 37 CFR 1.84(p)(5).

Applicants have amended the drawings taking into account the suggestions by the Examiner. As such, withdrawal of the Examiner's drawing objections is respectfully requested.

INFORMATION DISCLOSURE STATEMENT

Applicants acknowledge and thank the Examiner for the consideration of

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figure 1c. This sheet, which includes Figures 1a-1d, replaces the original sheet including Figures 1a-1d.

the references cited in the Information Disclosure Statement filed March 8, 2002, as indicated by the Examiner's initials and signature on the form PTO-1449.

PRIOR ART REJECTIONS

Rejections Under 35 U.S.C. 102(b)

Claims 1 and 3-6 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Beall et al. (WO 97/26572, hereinafter referred to as Beall).

In view of the amendments made to claims 1 and 4, Applicants respectfully traverse this rejection.

Beall

Beall is directed to a method for producing an athermal optical unit. More specifically, Beall focuses on the effects of temperature on the expansion of a substrate and the change in refractive index of an optical fiber.

The method as disclosed by Beall includes mounting an optical waveguide on a substrate with mechanical pre-tensioning. The optical waveguide includes a Bragg grid, which has been previously inserted, and the substrate has an intrinsic negative temperature expansion coefficient. The negative thermal expansion coefficient compensates for the positive change in the refractive index of the optical fiber caused by a change in temperature. In

other words, Beall is directed to the manufacture of a substrate, with a negative temperature expansion coefficient, and the attachment of an optical waveguide thereto.

Claims 1 and 4

Applicants respectfully assert that Beall fails to teach or suggest a method including at least fixing a conductor “at a first temperature” and producing an optical grating on a fixed conductor at a temperature “below a temperature” at which the grating may become degraded or deformed, as claimed in claim 1. Further, Applicants respectfully assert that Beall fails to teach or suggest an arrangement including at least an optical grating produced by at least fixing an optical conductor “at a first temperature” and producing a grating “below the temperature” at which the grating may become degraded or deformed, as claimed in claim 4.

In contrast, as discussed above, Beall discloses the consideration of temperature in the manufacture of suitable substrates from, for example, beta-eucaryptite (see page 7, line 30 – page 9, line 4). Beall further discloses the heating, and thermal cycling of an Athermalized Grating on a Beta-Eucaryptite Substrate in order to obtain the variation in grating center wavelength (see page 11, lines 16-22). In summation, Beall is directed to the formation of a substrate with a negative expansion, which compensates for a positive change

in the refractive index of the optical fiber. However, Beall makes no mention or suggestion of the conditions at which the grating may be formed on the conductor.

More specifically, Beall makes no mention or suggestion of fixing a conductor at a first temperature and producing an optical grating at a temperature below a temperature at which the grating may degrade or deform, as claimed in claim 1 and somewhat similarly in claim 4.

Thus, Applicants respectfully assert that Beall fails to teach or suggest all of the limitations as recited in claims 1 or 4.

Further, Applicants assert that Beall fails to teach or suggest all of the limitations as recited in claims 3, 5 and 6 for at least the reasons as discussed above with regard to claims 1 and 4, from which they depend.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

Rejections Under 35 U.S.C. 103(a)

Claim 2 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Beall. In view of the amendments to claims 1 and 4, In view of the amendments made to claims 1 and 4, Applicants respectfully traverse this rejection.

As discussed above, Beall makes no mention or suggestion of fixing a

conductor at a first temperature and producing an optical grating at a temperature below a temperature at which the grating may degrade or deform, as claimed in claim 1. Accordingly, Applicants respectfully assert that claim 2 is allowable for at least the reasons as discussed above with regard to independent claim 1, from which it depends.

As such, Applicants respectfully request that this rejection be withdrawn.

NEW CLAIMS

Applicants have added new claims 7-20 by the present amendment, which are also believed to be patentable over the prior art. Although somewhat similar arguments to those emphasized above with regard to claims 1-6 may apply, claims 7-20 should be governed solely by the limitations present therein and should not be limited in any way by limitations or arguments set forth in other independent claims. Accordingly, allowance of each of the new claims 7-20 is respectfully requested.

CONCLUSION

In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.

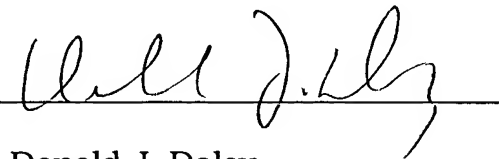
If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Andrew M. Waxman, Reg. No. 56,007, at the number of the undersigned listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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